

VPDES PERMIT FACT SHEET

This document gives pertinent information concerning the reissuance of the VPDES permit listed below. This permit is being processed as a Minor, Industrial permit. The effluent limitations contained in this permit will maintain the Water Quality Standards (WQS) of 9 VAC 25-260. The proposed discharge will result from the operation of a groundwater remediation facility (SIC Code: N/A). This permit action consists of reissuing the permit with revisions to the permit, as needed, due to changes in applicable laws, guidance, and available technical information.

1. Facility Name and Address:
Cooper Industries WWTP
PO Box 4446
Houston, Texas 77210-4446
Location: 395 Reas Ford Road, Earlysville, Virginia 22936
2. Permit No. VA0027065; Expiration Date: June 30, 2012
3. Owner: Cooper Industries, LLC
Contact Name: Nelson Olavarria
Title: Director Environmental Assessment and Remediation
Telephone No: 713.209.8850

4. Description of Treatment Works:
Total Number of Outfalls: 1

Cooper Industries WWTP receives wastewater generated by 7 groundwater remediation wells. The treatment units comprising the WWTP are shown in the schematics included in the permit reissuance application.

Average Discharge Flow (March 2009 – June 2011) = 0.011 MGD
Design Average Flow = 0.040 MGD

5. Application Complete Date: December 16, 2011

Permit Writer: Bev Carver	Date: February 9, 2012
Reviewed By: Brandon Kiracofe	Date: February 16, 2012

Public Comment Period: February 25, 2012 to March 26, 2012

6. Receiving Stream Name: South Fork Rivanna River, U.T.
River Mile: Outfall 001: 1.25
Use Impairment: Yes
Special Standards: PWS, NEW-3
Tidal Waters: No
Watershed Name: VAV – H26R South Fork Rivanna River/Ivy Creek
Basin: James (Middle); Subbasin: N/A Section: 10j; Class: III

7. Operator License Requirements per 9 VAC 25-31-200.C: N/A

8. Reliability Class per 9 VAC 25-790: N/A

9. Permit Characterization:
☒ Private ☐ Federal ☐ State ☐ POTW ☐ PVOTW
☐ Possible Interstate Effect ☐ Interim Limits in Other Document (attach copy of CSO)

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10. Discharge Location Description and Receiving Waters Information: Appendix A

11. Antidegradation (AD) Review & Comments per 9 VAC 25-260-30:

Tier Designation: South Fork Rivanna River, U.T.: Tier 1

The State Water Control Board's WQS include an AD policy. All state surface waters are provided one of three levels of AD protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 waters have water quality that is better than the WQS. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 waters are exceptional waters and are so designated by regulatory amendment. The AD policy prohibits new or expanded discharges into exceptional waters.

The AD review begins with a Tier determination. South Fork Rivanna River, U.T. downstream of the facility discharge location is determined to be Tier 1 because there is no stream flow at the discharge point during critical flow conditions. AD baselines are not calculated for Tier 1 waters.

12. Site Inspection: Performed by Bev Carver on November 3, 2011

13. Effluent Screening and Effluent Limitations: Appendix B

14. Effluent toxicity testing requirements included per 9 VAC 25-31-220.D: ☐ Yes ☒ No

If "No," check one:

- ☐ Municipal: This facility does not have a design flow ≥ 1.0 MGD, has no Significant Industrial Users (SIUs) or Categorical Industrial Users (CIUs), and is not deemed to have the potential to cause or contribute to instream toxicity.
- ☒ Industrial: This facility's SIC Code(s) and activities contributing wastewater do not fall within the categories for which aquatic toxicity monitoring is required and the discharge is not deemed to have the potential to cause or contribute to instream toxicity. See Appendix B

15. Sewage sludge utilization and disposal options: N/A

16. Bases for Special Conditions: Appendix C

17. Material Storage per 9 VAC 25-31-280.B.2: This permit requires that the facility's O&M Manual include information to address the management of wastes, fluids, and pollutants which may be present at the facility, to avoid unauthorized discharge of such materials.

18. Antibacksliding Review per 9 VAC 25-31-220.L: This permit complies with the antibacksliding provisions of the VPDES Permit Regulation.

19. Impaired Use Status Evaluation per 9 VAC 25-31-220.D: The South Fork Rivanna River, UT in the vicinity is not listed as impaired; however, Cooper Industries WWTP was included in the Rivanna River Sediment TMDL which was approved on June 11, 2008. The facility was assigned a Sediment WLA of 3,020 lb/year which is based on a design flow of 0.033 MGD and a TSS concentration of 30 mg/L. In addition, the facility was assigned a Sediment WLA of 16.5 lb/day which is based on a design flow of 0.033 MGD and a TSS concentration of 60 mg/L.

20. Regulation of Users per 9 VAC 25-31-280.B.9: N/A – There are no industrial users other than the owner contributing to the treatment works.

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21. Storm Water Management per 9 VAC 25-31-120: Application Required? ☐ Yes ☒ No
If “No,” check one:
☐ STPs: This facility does not have a design flow ≥ 1.0 MGD, nor is it required to have an approved POTW pretreatment program under 9 VAC 25-31-10 et seq.
☒ Others: This facility's SIC Code(s) and activities do not fall within the categories for which a Storm Water Application submittal is required.
22. Compliance Schedule per 9 VAC 25-31-250: There are no compliance schedules included in the reissued permit.
23. Variances/Alternative Limits or Conditions per 9 VAC 25-31-280.B, 100.J, 100.P, and 100.M: None
24. Financial Assurance Applicability per 9 VAC 25: N/A – This facility does not serve private residences.
25. Virginia Environmental Excellence Program (VEEP) Evaluation per § 10.1-1187.1-7: At the time of this reissuance, is this facility considered by DEQ to be a participant in the Virginia Environmental Excellence Program in good standing at either the Exemplary Environmental Enterprise (E3) level or the Extraordinary Environmental Enterprise (E4) level? ☐ Yes ☒ No
26. Nutrient Trading Regulation per 9 VAC 25-820:
General Permit Required: ☐ Yes ☒ No
27. Threatened and Endangered (T&E) Species Screening per 9 VAC 25-260-20 B.8: Because this is not an issuance or reissuance that allows increased discharge flows, T&E screening is not automatically required. However, in accordance with the VPDES Memorandum of Understanding, T&E screening was coordinated on September 28, 2011 through DGIF based upon request. Comments were received from DGIF on December 7, 2011 and are included in the permit processing file. Comments were considered in the drafting of the permit and were also forwarded to the permittee.
28. Public Notice Information per 9 VAC 25-31-280.B: All pertinent information is on file, and may be inspected and copied by contacting Bev Carver at: DEQ-Valley Regional Office, P.O. Box 3000, Harrisonburg, Virginia 22801, Telephone No. (540) 574-7805, beverley.carver@deq.virginia.gov.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requester's interests would be directly and adversely affected by the proposed permit action. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given.

29. NPDES Permit Rating Worksheet – Appendix B

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30. Historical Record:

- The facility opened in 1962 as Panorama Corporation. Prior to Cooper's acquisition of the facility in 1981, it was owned and operated by Murray Manufacturing and Arrow Hart (owned by Crouse-Hinds). The facility manufactured electrical distribution equipment throughout its history. Site operations included stamping, grinding, welding, painting and plating of metal parts.
- Cooper sold the manufacturing assets to Siemens Energy and Automation, Inc. (Siemens) in 1992 and Siemens leased the building. Siemens discontinued plating operations and continued to manufacture electrical distribution equipment. Siemens vacated the facility in 1997.
- Corrective measures have been on-going at this site since the discovery of contamination in 1984. The Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) for the Site was completed in 1991. The Corrective Measures Implementation Plan (CMIP) was approved by EPA in 1993 and again in December 1999, after additional remedial investigations (RI) were completed by Cooper.
- VPDES Permit No. VA0027065 was reissued on July 15, 2002.
- VPDES Permit No. VA0027065 was modified on March 1, 2005 to reflect a change in ownership. The owner of the permit was changed from Cooper Industries, Inc. to Cooper Industries, LLC.
- VPDES Permit No. VA0027065 was modified on November 30, 2005. The modification was limited to changing the pH and flow monitoring from once per month to once per quarter.
- VPDES Permit No. VA0027065 was reissued on July 15, 2007.

APPENDIX A

DISCHARGE LOCATION AND RECEIVING WATERS INFORMATION

Cooper Industries WWTP discharges to South Fork Rivanna River, U.T. in Albemarle County. The topographical map below shows the location of the treatment facility and Outfall 001.



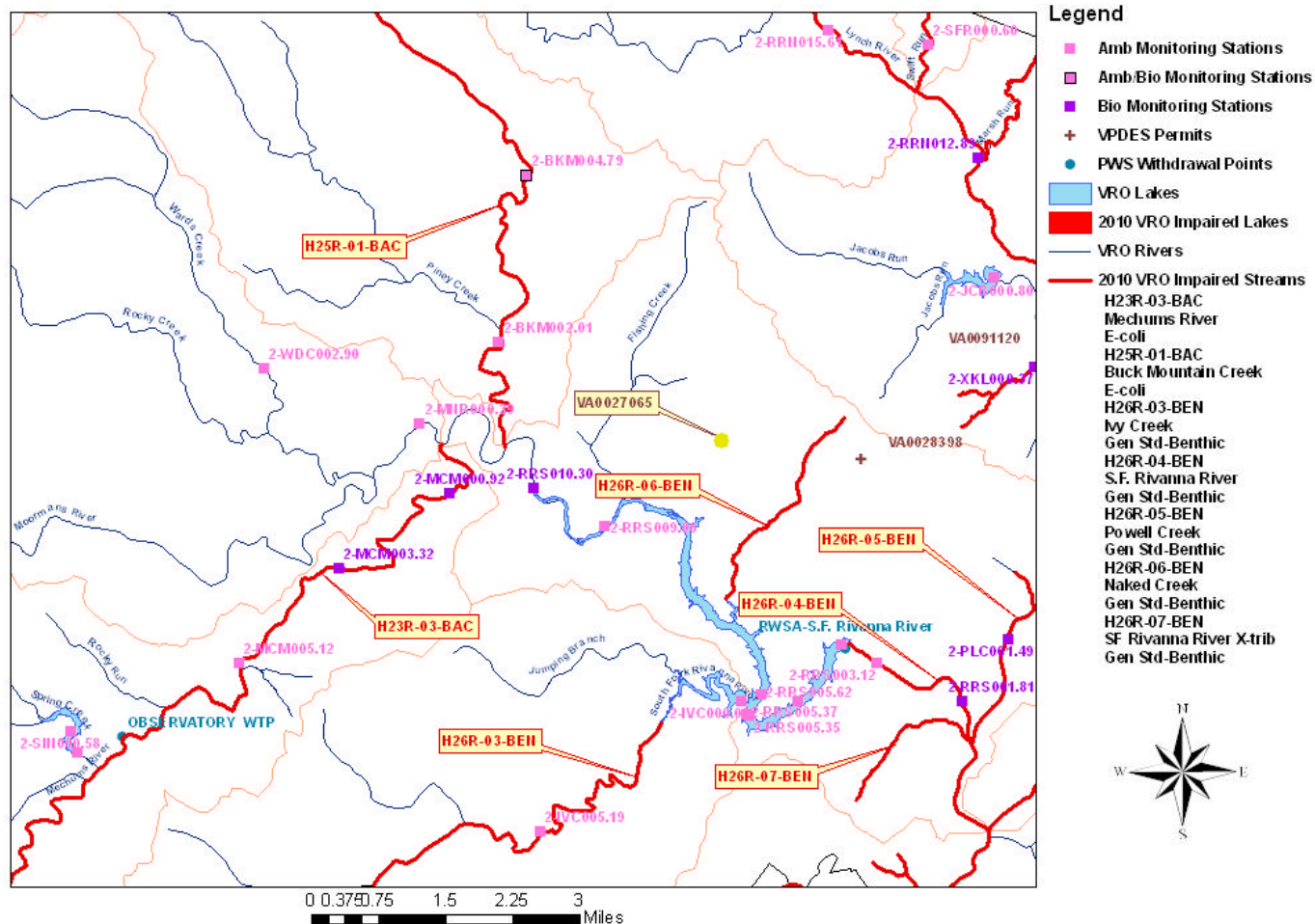
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PLANNING INFORMATION

Relevant points of interest within the watershed and in the vicinity of the discharge are shown on the Water Quality Assessment TMDL Review table and corresponding map below.

WATER QUALITY ASSESSMENTS REVIEW						
MIDDLE JAMES RIVER BASIN						
12/15/2011						
IMPAIRED SEGMENTS						
SEGMENT ID	STREAM	SEGMENT START	SEGMENT END	SEGMENT LENGTH	PARAMETER	
H23R-03-BAC	Mechums River	10.45	0.00	10.45	E-coli	
H25R-01-BAC	Buck Mountain Creek	17.15	0.00	17.15	E-coli	
H26R-03-BEN	Ivy Creek	11.41	0.00	11.41	Benthic	
H26R-04-BEN	South Fork Rivanna River	9.92	0.00	9.92	Benthic	
H26R-05-BEN	Powell Creek	3.38	0.00	3.38	Benthic	
H26R-06-BEN	Naked Creek	2.26	0.00	2.26	Benthic	
H26R-07-BEN	South Fork Rivanna River X-trib	2.7	0.00	2.7	Benthic	
PERMITS						
PERMIT	FACILITY	STREAM	RIVER MILE	LAT	LONG	WBID
VA0027065	Cooper Industries	S.F. Rivanna River X Trib	1.25	380816	0782937	VAV-H26R
VA0028398	Avionics Specialties, Inc.	Naked Creek X-Trib	0.68	380804	0782754	VAV-H26R
MONITORING STATIONS						
STREAM	NAME	RIVER MILE	RECORD	LAT	LONG	
Buck Mountain Creek	2-BKM002.01	2.01	07/01/93	380916	0783220	
Ivy Creek	2-IVC000.02	0.02	07/01/93	380541	0782922	
Mechums River	2-MCM005.12	5.12	05/06/70	380609	0783536	
Moormans River	2-MNR000.39	0.39	07/01/91	380826	0783320	
S.F. Rivanna Reservoir	2-RRS003.59	3.59	4/10/03	380616	782810	
S.F. Rivanna Reservoir	2-RRS005.62	5.62	4/10/03	380547	782910	
S.F. Rivanna River	2-RRS003.12	3.12	12/13/79	380603	0782741	
Wards Creek	2-WDC002.90	2.9	4/26/04	380901	783514	
Buck Mountain Creek	2-BKM004.79	4.79	5/23/05	381052	0783160	
S.F. Rivanna River	2-RRS010.30	10.3	8/29/01	380749	783156	
PUBLIC WATER SUPPLY INTAKES						
OWNER	STREAM	RIVER MILE				
SOUTH RIVANNA W	SOUTH FORK RIVANNA RESERVOIR	3.47				
WATER QUALITY MANAGEMENT PLANNING REGULATION						
Is this discharge addressed in the WQMP regulation? No						
If Yes, what effluent limitations or restrictions does the WQMP regulation impose on this discharge?						
PARAMETER	ALLOCATION					
WATERSHED NAME						
VAV-H26R South Fork Rivanna River/Ivy Creek						

Cooper Industries - Water Quality Assessments Review December 15, 2011



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FLOW FREQUENCY DETERMINATION

**MEMORANDUM
DEPARTMENT OF ENVIRONMENTAL QUALITY
VALLEY REGIONAL OFFICE**

4411 Early Road – P.O. Box 3000

Harrisonburg, VA 22801

SUBJECT: Flow Frequency Determination
Cooper Industries WWTP – VPDES Permit No. VA0027065, Albemarle County

TO: Permit Processing File

FROM: Bev Carver

DATE: September 28, 2011

This memo revises Jason Dameron's flow frequency determination memo dated April 12, 2007. Cooper Industries discharges to an unnamed tributary of the South Fork Rivanna Reservoir. Stream flow frequencies are required at this site for use by the permit writer in developing effluent limitations for the VPDES permit reissuance.

The receiving stream is depicted as an intermittent stream on the USGS Earlysville quadrangle topographic map. According to the topographic map, the receiving stream is intermittent from the headwaters to the confluence with the water supply reservoir. The flow frequencies for intermittent streams are considered to be 0.0 cfs for 1Q30, 1Q10, 7Q10, 30Q10, 30Q5, high flow 1Q10, high flow 7Q10, high flow 30Q10, harmonic mean and annual average.

Reviewer: JRD
Date: 9/28/11

EFFLUENT/STREAM MIXING EVALUATION

Because the receiving stream has a critical flow of 0 MGD, a mixing zone analysis was not performed. The mixing is considered 100% for discharges to a stream with no flow.

APPENDIX B

EFFLUENT SCREENING AND EFFLUENT LIMITATIONS

EFFLUENT LIMITATIONS

A comparison of technology and water quality-based limits was performed and the most stringent limits were selected, as summarized in the table below.

Outfall 001**Final Limits****Design Flow: 0.040 MGD**

PARAMETER	BASIS FOR LIMITS	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
		Monthly Average	Maximum	Frequency	Sample Type
Flow (MGD)	1	NL	NL	1/3 Months	Estimate
-----	-----	Monthly Average	Weekly Average	-----	-----
TSS (mg/L)	3	24	48	1/3 Months	Grab
-----	-----	Minimum	Maximum	-----	-----
pH (S.U.)	2	6.0	9.0	1/3 Months	Grab

NL = No Limitation, monitoring required

NA = Not Applicable

BASIS DESCRIPTIONS

1. VPDES Permit Regulation (9 VAC 25-31)
2. Water Quality Standards (9 VAC25-260)
3. Rivanna River Sediment TMDL approved 6 /11/08

LIMITING FACTORS – OVERVIEW:

The following potential limiting factors have been considered in developing this permit and fact sheet:

Water Quality Management Plan Regulation (WQMP) (9 VAC 25-720)	
A. TMDL limits	TSS
B. Non-TMDL WLAs	None
C. CBP (TN & TP) WLAs	None
Federal Effluent Guidelines	None
BPJ/Agency Guidance limits	None
Water Quality-based Limits - numeric	pH
Water Quality-based Limits - narrative	None
Technology-based Limits (9 VAC 25-40-70)	None
Whole Effluent Toxicity (WET)	None

EVALUATION OF THE EFFLUENT – CONVENTIONAL POLLUTANTS:

The pH limits reflect the current WQS for pH in the receiving stream and have been carried forward from the previous permit.

TSS limits were included at this reissuance based on the Rivanna River Sediment TMDL. The concentration limits are sufficiently stringent to ensure compliance with the Rivanna River Sediment TMDL WLAs. Based on effluent data submitted by the permittee, it is expected that the new TSS limits will be consistently met; therefore, no compliance schedule has been included.

The quarterly monitoring frequency for pH, TSS and flow has been carried forward from the previous permit based on the consistent effluent flow and the fact that there have been no significant changes in the groundwater characteristics or treatment process.

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EVALUATION OF THE EFFLUENT – NUTRIENTS:

Nutrient monitoring and limits are currently not required for this industrial facility.

EVALUATION OF WHOLE EFFLUENT TOXICITY (WET):

The facility was closed in December 1996. WET testing on the groundwater remediation system serving Outfall 001 was conducted during the 1997 – 2002 permit term. WET monitoring was removed in 2002 based on review of the data conducted during the previous permit term, which did not indicate that there was a reasonable potential for toxicity at Outfall 001.

The groundwater treatment system has not changed except for the air stripper which will be added to the system in 2012. In addition, the quarterly monitoring for pH and TSS in this permit and the quarterly monitoring of Volatile Organics through the groundwater remediation program control the toxicity of the effluent and protect water quality; therefore, no WET monitoring has been required.

EVALUATION OF THE EFFLUENT – TOXICS:

Discharge: The effluent data for pH was taken from the Discharge Monitoring Reports. The effluent temperature data was taken from the permit application. The hardness data was carried forward from the previous fact sheet.

Effluent Information			
90% Annual Temp (°C) =	12.1	90% pH (SU) =	7.2
Mean Hardness (mg/L) =	161	10% pH (SU) =	6.5

Stream: The receiving stream is considered to be an intermittent stream; therefore, water quality data for the discharge was also entered for the stream.

All toxic pollutants, including Ammonia-N and TRC, are assumed absent in the receiving stream because there are no data for these parameters directly above the discharge.

WQC and WLAs were calculated for the WQS parameters for which data are available. The resulting WQC and WLAs are presented in this appendix. The effluent data were analyzed per the protocol for evaluation of effluent toxic pollutants included in this appendix with the following results:

- Chlorine: The previous permit contained TRC limits because chlorine was added for algae control. The permittee no longer adds chlorine; therefore, the TRC limits were removed from the permit. Because new information is available, the removal of the TRC limits complies with antibacksliding requirements.
- Volatile Organics: The permittee monitors for volatile organics quarterly under their groundwater remediation plan. The results of the quarterly monitoring were submitted with the 2012 VPDES permit application. All of the data were less than the quantification levels specified by DEQ; therefore, no permit limits are required.

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WQC-WLA SPREADSHEET INPUT

WATER QUALITY CRITERIA / WASTE LOAD ALLOCATION ANALYSIS

Facility Name:

Cooper Industries LLC

Receiving Stream:

South Fork Rivanna River, UT

Permit No.: VA0027065

Date: 3/30/2012

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		Stream Flows		Mixing Information		Effluent Information	
Mean Hardness (as CaCO ₃) =	161 mg/L	1Q10 (Annual) =	0 MGD	Annual - 1Q10 Flow =	100 %	Mean Hardness (as CaCO ₃) =	161 mg/L
90% Temperature (Annual) =	12.1 deg C	7Q10 (Annual) =	0 MGD	- 7Q10 Flow =	100 %	90% Temp (Annual) =	12.1 deg C
90% Temperature (Wet season) =	deg C	3Q10 (Annual) =	0 MGD	- 3Q10 Flow =	100 %	90% Temp (Wet season) =	deg C
90% Maximum pH =	7.15 SU	1Q10 (Wet season) =	0 MGD	Wet Season - 1Q10 Flow =	100 %	90% Maximum pH =	7.2 SU
10% Maximum pH =	6.5 SU	3Q10 (Wet season) =	0 MGD	- 3Q10 Flow =	100 %	10% Maximum pH =	6.5 SU
Tier Designation =	1	3Q5 =	0 MGD			Current Discharge Flow =	0.040 MGD
Public Water Supply (PWS) Y/N? =	Y	Harmonic Mean =	0 MGD			Discharge Flow for Limit Analysis =	0.040 MGD
V(alley) or P(iedmont)? =	P						
Trout Present Y/N? =	N						
Early Life Stages Present Y/N? =	Y						

Footnotes:

- All concentrations expressed as micrograms/liter (ug/L), unless noted otherwise.
- All flow values are expressed as Million Gallons per Day (MGD).
- Discharge volumes are highest monthly average or 2C maximum for Industries and design flows for Municipals.
- Hardness expressed as mg/l CaCO₃. Standards calculated using Hardness values in the range of 25-400 mg/l CaCO₃.
- "Public Water Supply" protects for fish & water consumption. "Other Surface Waters" protects for fish consumption only.
- Carcinogen "Y" indicates carcinogenic parameter.
- Ammonia WQGs selected from separate tables, based on pH and temperature.
- Metals measured as Dissolved, unless specified otherwise.
- WLA = Waste Load Allocation (based on standards).
- WLA = Waste Load Allocation (based on standards).
- WLAs are based on mass balances (less background, if data exist).
- Acute - 1 hour avg. concentration not to be exceeded more than 1/3 years.
- Chronic - 4 day avg. concentration (30 day avg. for Ammonia) not to be exceeded more than 1/3 years.
- Mass balances employ 1Q10 for Acute, 3Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 3Q5 for Non-carcinogens, and Harmonic Mean for Carcinogens. Actual flows employed are a function of the mixing analysis and may be less than the actual flows.
- Effluent Limitations are calculated elsewhere using the minimum WLA and EPA's statistical approach (Technical Support Document).

WQC-WLA SPREADSHEET OUTPUT

Facility Name:

Cooper Industries LLC

Permit No.:

VA0027065

Receiving Stream:

South Fork Rivanna River, UT

Date:

2/8/2012

WATER QUALITY CRITERIA

0.040 MGD Discharge Flow - Mix per "Mixer"

Toxic Parameter and Form	Carcinogen?	Human Health			
		Aquatic Protection		Public Water	Other Surface
		Acute	Chronic	Supplies	Waters
Benzene	Y	None	None	2.2E+01	5.1E+02
Bromofom	Y	None	None	4.3E+01	1.4E+03
Carbon Tetrachloride	Y	None	None	2.3E+00	1.6E+01
Chlorobenzene	N	None	None	1.3E+02	1.6E+03
Chlorodibromomethane	Y	None	None	4.0E+00	1.3E+02
Chloroform	N	None	None	3.4E+02	1.1E+04
Dichlorobromomethane	Y	None	None	5.5E+00	1.7E+02
1,2-Dichloroethane	Y	None	None	3.8E+00	3.7E+02
1,1-Dichloroethylene	N	None	None	3.3E+02	7.1E+03
1,2-trans-dichloroethylene	N	None	None	1.4E+02	1.0E+04
1,2-Dichloropropane	Y	None	None	5.0E+00	1.5E+02
1,3-Dichloropropene	Y	None	None	3.4E+00	2.1E+02
Ethylbenzene	N	None	None	5.3E+02	2.1E+03
Methylene Chloride	Y	None	None	4.6E+01	5.9E+03
1,1,2,2-Tetrachloroethane	Y	None	None	1.7E+00	4.0E+01
Tetrachloroethylene	Y		None	6.9E+00	3.3E+01
Toluene	N	None	None	5.1E+02	6.0E+03
1,1,2-Trichloroethane	Y	None	None	5.9E+00	1.6E+02
Trichloroethylene	Y	None	None	2.5E+01	3.0E+02
Vinyl Chloride	Y	None	None	2.5E-01	2.4E+01

NON-ANTIDEGRADATION

WASTE LOAD ALLOCATIONS

0.040 MGD Discharge - Mix per "Mixer"

Aquatic Protection		Human Health
Acute	Chronic	
N/A	N/A	2.2E+01
N/A	N/A	4.3E+01
N/A	N/A	2.3E+00
N/A	N/A	1.3E+02
N/A	N/A	4.0E+00
N/A	N/A	3.4E+02
N/A	N/A	5.5E+00
N/A	N/A	3.8E+00
N/A	N/A	3.3E+02
N/A	N/A	1.4E+02
N/A	N/A	5.0E+00
N/A	N/A	3.4E+00
N/A	N/A	5.3E+02
N/A	N/A	4.6E+01
N/A	N/A	1.7E+00
0.0E+00	N/A	6.9E+00
N/A	N/A	5.1E+02
N/A	N/A	5.9E+00
N/A	N/A	2.5E+01
N/A	N/A	2.5E-01

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PROTOCOL FOR THE EVALUATION OF THE EFFLUENT – TOXIC POLLUTANTS

Toxic pollutants were evaluated in accordance with OWP Guidance Memo No. 00-2011. Acute and Chronic WLAs (WLA_a and WLA_c) were analyzed according to the protocol below using a statistical approach (STAT.exe) to determine the necessity and magnitude of limits. Human Health WLAs (WLA_{hh}) were analyzed according to the same protocol through a simple comparison with the effluent data. If the WLA_{hh} exceeded the effluent datum or data mean, no limits were required. If the effluent datum or data mean exceeded the WLA_{hh} , the WLA_{hh} was imposed as the limit. Since the discharge is to an intermittent stream, all upstream (background) pollutant concentrations are assumed to be "0".

The steps used in evaluating the effluent data are as follows:

- A. If all data are reported as "below detection" or $<$ the required Quantification Level (QL), and at least one detection level is $=$ the required QL, then the pollutant is considered to be not significantly present in the discharge and no further monitoring is required.
- B. If all data are reported as "below detection", and all detection levels are $>$ the required QL, then an evaluation is performed in which the pollutant is assumed present at the lowest reported detection level.
 - B.1. If the evaluation indicates that no limits are needed, then the existing data set is adequate and no further monitoring is required.
 - B.2. If the evaluation indicates that limits are needed, then the existing data set is inadequate to make a determination and additional monitoring is required.
- C. If any data value is reported as detectable at or above the required QL, then the data are adequate to determine whether effluent limits are needed.
 - C.1. If the evaluation indicates that no limits are needed, then no further monitoring is required.
 - C.2. If the evaluation indicates that limits are needed, then the limits and associated requirements are specified in the draft permit.
 - C.3. If the evaluation indicates that limits are needed, but the metals data are reported as a form other than "Dissolved", then the existing data set is inadequate to make a determination and additional monitoring is required.

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TOXLARGE

Parameter	CASRN	QL (ug/L)	Data (ug/L unless noted otherwise)	Source of Data	Data Eval
VOLATILES					
Benzene ^C	71-43-2	10.0	<5	a	A
Bromoform ^C	75-25-2	10.0	<5	a	A
Carbon Tetrachloride ^C	56-23-5	10.0	<5	a	A
Chlorobenzene	108-90-7	50.0	<5	a	A
Chlorodibromomethane ^C	124-48-1	10.0	<5	a	A
Chloroform	67-66-3	10.0	<5	a	A
Dichlorobromomethane ^C	75-27-4	10.0	<5	a	A
1,2-Dichloroethane ^C	107-06-2	10.0	<5	a	A
1,1-Dichloroethylene	75-35-4	10.0	<5	a	A
1,2-trans-dichloroethylene	156-60-5	---	<5	a	A
1,2-Dichloropropane ^C	78-87-5	---	<5	a	A
1,3-Dichloropropene ^C	542-75-6	---	<5	a	A
Ethylbenzene	100-41-4	10.0	<5	a	A
Methylene Chloride ^C	75-09-2	20.0	<5	a	A
1,1,2,2-Tetrachloroethane ^C	79-34-5	---	<5	a	A
Tetrachloroethylene	127-18-4	10.0	<5	a	A
Toluene	10-88-3	10.0	<5	a	A
1,1,2-Trichloroethane ^C	79-00-5	---	<5	a	A
Trichloroethylene ^C	79-01-6	10.0	<5	a	A
Vinyl Chloride ^C	75-01-4	10.0	<2	a	A
MISCELLANEOUS					
Hardness (mg/L as CaCO ₃)	471-34-1	---	161	b	N/A

"Type" column indicates a category assigned to the referenced substance (see below):

A = Acid Extractable Organic Compounds
 B = Base/Neutral Extractable Organic Compounds
 M = Metals
 p = PCBs
 P = Pesticides
 R = Radionuclides
 V = Volatile Organic Compounds
 X = Miscellaneous Compounds and Parameters

The **superscript "C"** following the parameter name indicates that the substance is a known or suspected carcinogen; human health criteria at risk level 10⁻⁵.

"Source of Data" codes:

a = 2012 VPDES Permittee Application
 b = 2007 Fact Sheet

"Data Evaluation" codes:

See section titled PROTOCOL FOR THE EVALUATION OF EFFLUENT TOXIC POLLUTANTS for an explanation of the code used.

CASRN = Chemical Abstract Service Registry Number for each parameter is referenced in the current Water Quality Standards. A unique numeric identifier designating only one substance. The Chemical Abstract Service is a division of the American Chemical Society.

Fact Sheet – VPDES Permit No. VA0027065 – Cooper Industries WWTP

VPDES PERMIT RATING WORK SHEET

Cooper Industries WWTP is a groundwater remediation facility. There are no manufacturing activities at the site. The SIC code 3643 pertains to the manufacturing operations that previously occurred at the site. Facilities identified under SIC code 3643 have the following characteristics as defined in Appendix A to the NPDES Permit Rating Work Sheet found in the VPDES Permit Manual.

1987 SIC Code	1987 SIC Code Title	40 CFR 439 Sub- Part	Sub-part Title	Human Health Toxicity Number	Total Toxicity Number	Industrial Sub- category Number
3643	CURRENT CARRYING WIRING DEVICE	NA	NA	1	1	99

Factor 1 – Toxic Pollutant Potential – The Total Toxicity Number is 1. This is unchanged from the previous rating.

Factor 2 – Flow/Stream Flow Volume – Section B, Type II is selected because the receiving stream flow is zero and the discharge consists of 100% effluent. This is unchanged from the previous rating.

Factor 3.A. – Oxygen Demanding Pollutant – The permit does not contain limits for BOD₅ or COD. This is unchanged from the previous rating.

Factor 3.B. – TSS – TSS limits were added to the permit. This is unchanged from the previous rating.

Factor 3.C. – Ammonia – The permit does not contain limits for Ammonia-N. This is unchanged from the previous rating.

Factor 4. – Public Health Impact – A worst case assumption is made for proximity to public water supplies. The Human Health Toxicity Number is 1 for this SIC code. This is unchanged from the previous rating.

Factor 5.A. – The permit contains permit limits based on WQS for pH. This is changed from the previous rating.

Factor 5.B. – The receiving water meets criteria for WQS limited parameters. This is unchanged from the previous rating.

Factor 5.C. – The permit does not contain TMP requirements. This is unchanged from the previous rating.

Factor 6. – Proximity to Near Coastal Waters: Headquarters Priority Permit Indicator (HPRI) Code #4 – This discharge occurs in a non-coastal county.

Fact Sheet – VPDES Permit No. VA0027065 – Cooper Industries WWTP

☐ Regular Addition
☐ Discretionary Addition
☒ Score change, but no status change
☐ Deletion

VPDES No.: VA0027065

Facility: Cooper Industries, LLC

City: Earlysville, Virginia

Receiving Water: South Fork Rivanna River, UT

Reach Number: _____

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

☐ Yes: score is 700 (stop here)
☒ No (continue)

☐ Yes: score is 600 (stop here) ☒ No (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: _____ Primary SIC Code: 3643 Other SIC Codes: _____

Industrial Subcategory Code: _____ (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one.

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
No process waste streams	0	0	3.	3	15	7.	7	35
<input checked="" type="checkbox"/> 1.	1	5	4.	4	20	8.	8	40
<input type="checkbox"/> 2.	2	10	5.	5	25	9.	9	45
			6.	6	30	10.	10	50

Code Number Checked: 1

Total Points Factor 1: 5

FACTOR 2: Flow/Stream Flow Volume (Complete Either Section A or Section B; check only one)

Section A – Wastewater Flow Only Considered

Wastewater Type (See Instructions)	Code	Points
Type I:		
Flow < 5 MGD	<u>11</u>	0
Flow 5 to 10 MGD	<u>12</u>	10
Flow > 10 to 50 MGD	<u>13</u>	20
Flow > 50 MGD	<u>14</u>	30
Type II:		
Flow < 1 MGD	<u>21</u>	10
Flow 1 to 5 MGD	<u>22</u>	20
Flow > 5 to 10 MGD	<u>23</u>	30
Flow > 10 MGD	<u>24</u>	50
Type III:		
Flow < 1 MGD	<u>31</u>	0
Flow 1 to 5 MGD	<u>32</u>	10
Flow > 5 to 10 MGD	<u>33</u>	20
Flow > 10 MGD	<u>34</u>	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (See Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type I/III:	< 10%	<u>41</u>	0
	≥ 10% to < 50%	<u>42</u>	10
	≥ 50%	<u>43</u>	20
Type II:	< 10%	<u>51</u>	0
	≥ 10% to < 50%	<u>52</u>	20
	≥ 50%	<input checked="" type="checkbox"/> 53	30

Code Checked from Section A or B: 53

Total Points Factor 2: 30

Fact Sheet – VPDES Permit No. VA0027065 – Cooper Industries WWTP

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutant: (check one): _____ BOD _____ COD _____ Other: _____

Code Points

Permit Limits: (check one)	<input type="checkbox"/> < 100 lbs/day	1	0
	<input type="checkbox"/> 100 to 1000 lbs/day	2	5
	<input type="checkbox"/> > 1000 to 3000 lbs/day	3	15
	<input type="checkbox"/> > 3000 lbs/day	4	20

Code Checked: NA

Points Scored: NA

B. Total Suspended Solids (TSS)

Code Points

Permit Limits: (check one)	<input checked="" type="checkbox"/> < 100 lbs/day	1	0
	<input type="checkbox"/> 100 to 1000 lbs/day	2	5
	<input type="checkbox"/> > 1000 to 5000 lbs/day	3	15
	<input type="checkbox"/> > 5000 lbs/day	4	20

Code Checked: 1

Points Scored: 0

C. Nitrogen Pollutant: (check one): _____ Ammonia _____ Other: _____

Nitrogen Equivalent

Code Points

Permit Limits: (check one)	<input type="checkbox"/> < 300 lbs/day	1	0
	<input type="checkbox"/> 300 to 1000 lbs/day	2	5
	<input type="checkbox"/> > 1000 to 3000 lbs/day	3	15
	<input type="checkbox"/> > 3000 lbs/day	4	20

Code Checked: NA

Points Scored: NA

Total Points Factor 3: 0

FACTOR 4: Public Health Impact: Is there a public drinking supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above-referenced supply.

☒ Yes (if yes, check toxicity potential number below)

☐ No (if no, go to Factor 5)

Determine the human health toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
No process waste streams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input checked="" type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

Code Number Checked: 1

Total Points Factor 4: 0

Fact Sheet – VPDES Permit No. VA0027065 – Cooper Industries WWTP

FACTOR 5: Water Quality Factors

- A. Is (or will) one or more of the effluent discharge limits, based on water quality factors of the receiving stream (rather than technology-based Federal effluent guidelines, or technology-based State effluent guidelines), or has a wasteload allocation been assigned to the discharge?

		Code	Points
<u> x </u>	Yes	1	10
<u> </u>	No	2	0

- B. Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?

		Code	Points
<u> x </u>	Yes	1	0
<u> </u>	No	2	5

- C. Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

		Code	Points
<u> </u>	Yes	1	10
<u> x </u>	No	2	0

Code Number Checked: A 1 B 1 C 2
 Points Factor 5: A 10 + B 0 + C 0 = 10

FACTOR 6: Proximity to Near Coast Waters

- A. Base Score: Enter flow code here (from Factor 2): 53 0.60

Check appropriate facility HPRI Code (from PCS):

HPRI #	Code	HPRI Score	Flow Code	Multiplication Factor	
<u> </u>	1	1	20	11, 31, or 41 12, 32, or 42	0.00 0.05
<u> </u>	2	2	0	13, 33, or 43 14 or 34	0.10 0.15
<u> </u>	3	3	30	21 or 51 22 or 52	0.10 0.30
<u> x </u>	4	4	0	23 or 53 24	0.60 1.00
	5	5	20		

HPRI code checked: 4
 Base Score: (HPRI Score) 0 x (Multiplication Factor) .60 = 0 (Total Points)

- B. Additional Points – NEP Program
 For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?
- C. Additional Points – Great Lakes Area of Concern
 For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see instructions)?

N/A		Code	Points	N/A		Code	Points
<u> </u>	Yes	1	10	<u> </u>	Yes	1	10
<u> </u>	No	2	0	<u> x </u>	No	2	0
Code Number Checked:				Code Number Checked:			
Points Factor 6:				Points Factor 6:			
A <u> 4 </u>				A <u> - </u>			
+ B <u> 0 </u>				+ B <u> 0 </u>			
= C <u> 0 </u>				= C <u> 0 </u>			

Fact Sheet – VPDES Permit No. VA0027065 – Cooper Industries WWTP

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	5
2	Flow/Stream Flow Volume	30
3	Conventional Pollutants	0
4	Public Health Impacts	0
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	0
TOTAL (Factors 1-6)		45

S1. Is the total score equal to or greater than 80? _____ Yes (facility is a major) **x** No

S2. If the answer to the above question is no, would you like this facility to be discretionary major?

x No

_____ Yes (add 500 points to the above score and provide reason below):

Reason: _____

New Score: 45

Old Score: 35

Bev Carver

Permit Reviewer's Name

(540) 574-7805

Phone Number

January 2, 2012

Date

APPENDIX C

BASES FOR PERMIT SPECIAL CONDITIONS

Tabulated below are the sections of the permit, with any changes and the reasons for the changes identified. Also provided is the basis for each of the permit special conditions.

Cover Page	<ul style="list-style-type: none">Content and format as prescribed by the VPDES Permit Manual.
Part I.A.	<p>Effluent Limitations and Monitoring Requirements: <i>Updates Part I.A. of the previous permit with the following:</i></p> <ul style="list-style-type: none">Changes were made to the format and introductory languageTRC limits were removedTSS limits were addedFootnotes were updated to reflect current DEQ guidance and changes in the reissued permit
Part I.B.	<p>Effluent Limitations and Monitoring Requirements – Additional Instructions: <i>Updates Part I.B. of the previous permit.</i> The QL for Chlorine for removed. The QL for TSS was added. Authorized by VPDES Permit Regulation, 9 VAC 25-31-190 J 4 and 220 I. This condition is necessary when a maximum level of quantification and/or a specific analytical method is required in order to assess compliance with a permit limit or to compare effluent quality with a numeric criterion. The condition also establishes protocols for calculation of reported values.</p>
Part I.C.1.	<p>95% Capacity Reopener: <i>Identical to Part I.C.1. of the previous permit.</i> Required by VPDES Permit Regulation, 9 VAC 25-31-200 B 4 for certain permits.</p>
Part I.C.2.	<p>Materials Handling/Storage: <i>Identical to Part I.C.2. of the previous permit.</i> 9 VAC 25-31-280.B.2. requires that the types and quantities of “wastes, fluids, or pollutants which are ... treated, stored, etc.” be addressed for all permitted facilities.</p>
Part I.C.3.	<p>O&M Manual Requirement: <i>Updates Part I.C.3. of the previous permit.</i> Code of Virginia at 62.1-44.16, VPDES Permit Regulation 9 VAC 25-31-190 E, and 40 CFR 122.41(e) require proper operation and maintenance of the permitted facility. Added requirement to describe procedures for documenting compliance with the permit requirement that there shall be no discharge of floating solids or visible foam in other than trace amounts.</p>
Part I.C.4.	<p>Reopeners:</p> <p>a. <i>Updates Part I.C.8. of the previous permit:</i> Section 303(d) of the Clean Water Act requires that total maximum daily loads (TMDLs) be developed for streams listed as impaired. This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL approved for the receiving stream. The reopener recognizes that, according to section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan, or other wasteload allocation prepared under section 303 of the Act.</p> <p>b. <i>Updates Part I.C.4. of the previous permit:</i> 9 VAC 25-31-390 A authorizes DEQ to modify VPDES permits to promulgate amended water quality standards.</p>
Part I.C.5.	<p>Notification Levels: <i>Identical to Part I.C.5. of the previous permit.</i> Required by the VPDES Permit Regulation 9 VAC 25-31-200 A for all manufacturing, commercial, mining, and silvicultural dischargers.</p>
Part II	<p>Conditions Applicable to All VPDES Permits: <i>Updates Part II of previous permit.</i> VPDES Permit Regulation 9 VAC 25-31-190 requires all VPDES permits to contain or specifically cite the conditions listed. Part II,A.4. language added for Virginia Environmental Laboratory Accreditation Program (VELAP) per 1 VAC 30, Chapter 45: Certification for Noncommercial Environmental Laboratories, and 1 VAC 30, Chapter 46: Accreditation for Commercial Laboratories.</p>

DELETIONS

Tabulated below are the sections of the previous permit that were deleted and the basis for this action.

Part I.C.6. (Treatment Works Closure Plan): Because this facility does not treat sewage wastewater, the treatment works closure plan requirement is not applicable.

Part I.C.7. (Water Quality Criteria Monitoring): This requirement was completed during the previous permit.